

DVI / VGA USB KVM Switch

2 Port DVI / VGA USB KVM Switch

4 Port DVI / VGA USB KVM Switch

SV231DDUSB

SV431DDUSB

Instruction Manual



*SV431DDUSB Shown - Actual product may vary from photo



StarTech.com
Making hard-to-find easy!

FCC Compliance Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Use of Trademarks, Registered Trademarks, and other Protected Names and Symbols

This manual may make reference to trademarks, registered trademarks, and other protected names and/or symbols of third-party companies not related in any way to StarTech.com. Where they occur these references are for illustrative purposes only and do not represent an endorsement of a product or service by StarTech.com, or an endorsement of the product(s) to which this manual applies by the third-party company in question. Regardless of any direct acknowledgement elsewhere in the body of this document, StarTech.com hereby acknowledges that all trademarks, registered trademarks, service marks, and other protected names and/or symbols contained in this manual and related documents are the property of their respective holders.

Table of Contents

Introduction	.1
Features	.1
Package Contents	.1
Hardware Guide	.2
Installation	.2
Installing the KVM Switcher Software	.3
Operation	.3
Front Panel Buttons	.3
Keyboard Hotkeys	.3
Switcher Software	.3
Keyboard Hotkey Commands	.7
Specifications	.8
Technical Support	.8
Warranty Information	.8

Introduction

Thank you for purchasing a StarTech.com DVI/VGA USB KVM Switch. Providing simple, centralized control of multiple computers from a single display and USB peripheral set (Keyboard and Mouse), SV231DDUSB/SV431DDUSB offers versatile dual display capability, supporting both VGA and DVI, as well as support for audio switching and USB device sharing between connected computers - providing rich multimedia capability and cost-effectiveness.

Features

- Direct channel selection and operation using front-panel push button and keyboard hotkeys
- Supports Dual Monitor/Flat Panel Displays (1 x DVI, 1 x VGA)
- DVI-I Single Link interface technology supports digital and analog video signal transmission
- HDCP compliant for digital contents protection
- Status LED display for easy port status monitoring
- Support DDC2B emulation

Package contents:

This package should contain:

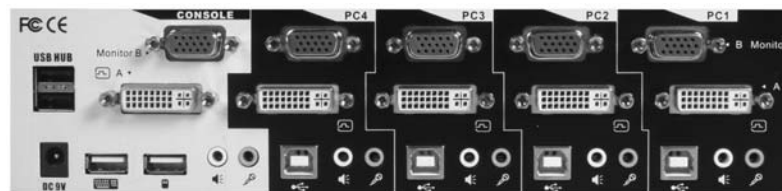
- 1 X DVI / VGA USB KVM Switch
- 1 X Power Adapter
- 1 X Software CD
- 1 X Manual

Hardware Guide

Front Panel



Rear panel



*SV431DDUSB shown - actual product may vary from photo

Installation

Please note: Some older computers might require that the USB option be manually enabled in the BIOS, prior to being able to use any USB devices. If you find that USB devices are not functioning, please check the USB option in the BIOS.

Please note: If you use Windows 95/98/SE or Mac OS and wish to use a USB mouse, please ensure that it is properly installed on the computer, prior to connecting it to the KVM Switch.

1. Place the KVM switch in close proximity to the keyboard, mouse, and monitor(s) you wish to use as the console controls.
2. Plug the power adapter into a wall outlet or other suitable power source. Connect the opposite end to the port marked **DC 9V** on the KVM switch.
3. Connect the shared USB keyboard, mouse, two monitors, speakers and microphone (if applicable), as well as other shared USB devices to the KVM switch.
4. Connect each of your computers to the KVM switch, using a DVI-I video cable, VGA cable, USB (Type A-to-Type B) cable, audio and mic cables (optional), ensuring the connections are kept together (i.e. PC1 connections to PC1 only etc.).
5. Power up the connected computers, one at a time. After the computers are powered up, the keyboard and mouse will be recognized, allowing operation using the KVM Switch.

Installing the KVM Switcher Software

Please note: The Switcher Software provides an alternative way to operate KVM functions in addition to the original hardware hotkeys. If you are satisfied with the hardware hotkeys, software installation is not necessary.

Also note: The Windows switcher software is recommended for systems using Windows 98SE or later. The Mac switcher Software is recommended for use on Mac OS 10.4 (Tiger) and later.

1. Insert the software CD (included) into the CD/DVD-ROM drive. This will launch the Autorun screen. If the Autorun function has been disabled on the computer, simply locate and execute the Autorun.exe file on the CD.
2. Click on **"Software Installation for Windows"** to begin installation. Follow the instructions to completion. Once installation is finished, you will see a KVM Switcher icon appear on the system tray of your desktop. Right-click on the icon to evoke the operation menu, and double-click to evoke the configuration box. For Mac users, locate the Mac switcher software (with a file extension of .pkg or .zip) and install it on your Mac.

Operation

There are three methods to control the KVM Switch for PC, USB hub and audio/mic channel selection: using the front-panel push buttons, a hotkey sequence, or the Switcher Software.

Front Panel Buttons

The Front Panel buttons allow direct control over KVM switch operation and channel switching. Simply press the **PC** button for PC port switching. If binding is enabled between PC / USB hub port control / Audio and Mic switching, they will be jointly selected at the same time). If you wish to enable the binding of PC / Hub Port control / Audio and Mic switching, use the hotkey sequences described on page 7 .

Keyboard Hotkeys

A keyboard hotkey sequence consists of at least three specific keystrokes:

Hotkey sequence = [ScrLk]* + [ScrLk] * + Command key(s)

(* User-definable = SCROLL LOCK, CAPS, ESC, F12 or NUM LOCK)

To configure the KVM Switch to use a preceding sequence other than two consecutive Scroll Locks:

- (1) Hit **ScrollLock + ScrollLock + H**, which will be followed by two beeps indicating readiness for selection of a new preceding sequence, or press and hold down the last front-panel button (Button 2 on SV231DDUSB, Button 4 on SV431DDUSB) until you hear two beeps, then release the button.
- (2) Select and press the key you would like to use as your preceding sequence (**SCROLL**

LOCK, CAPS, ESC, F12 or **NUM LOCK** keys are available for selection) and you'll hear a beep for selection confirmation. The new preceding sequence can now be used to execute hotkey commands.

Switcher Software

Right-click the **KVM Switcher** icon (shown below) to launch the operation menu, then select whichever PC is available for switching. Once you select a PC channel, it will immediately switch to that PC. Please note that the unconnected port(s), or the active port will be grayed-out and hence be non-selectable.

The following icons can be located in the Windows Taskbar, and provide access to the KVM Switcher Software:

On **Windows-based** computers:



No live connection detected



Current active PC channel is on Port 1



Current active PC channel is on Port 2

On **Mac** computers:



No live connection detected



Current active PC channel is on Port 1



Current active PC channel is on Port 2



Please Note! Each keystroke within a hotkey sequence should be pressed within two seconds. Otherwise, the hotkey sequence will not be validated.

Switch to PC x by Operation Menu

Right-click the KVM Switcher icon to evoke the operation menu, then select whichever PC is available for switching. Once you select a PC channel, it will immediately switch to that PC. Note that the unconnected port(s) or the active port will be grayed-out and hence non-selectable.

Switch to PC x by Keyboard Hotkeys

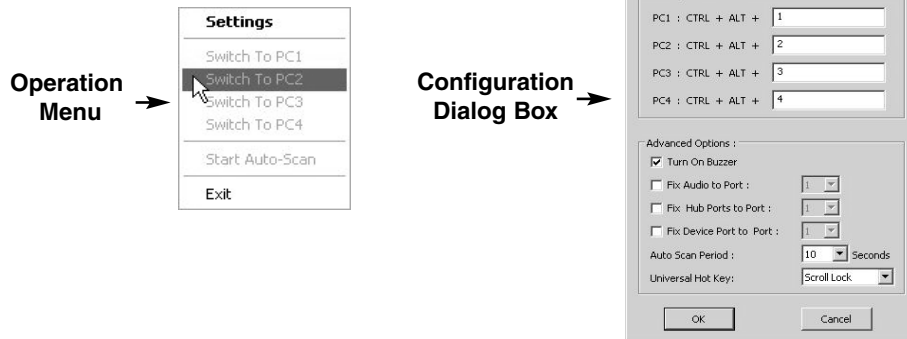
Hit the hotkey according to your current hotkey definition:

Hotkey sequence = Ctrl - Alt - [command key]*

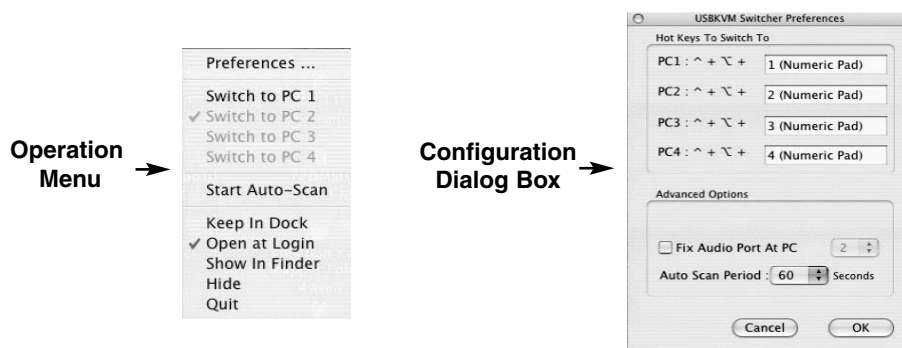
* The factory default hotkey setting is **Ctrl + Alt + 1/2/3/4** for PC **1/2/3/4**. You can also use **ScrLk + ScrLk + 'x'** to switch PC **x**.

Please note: The three keys should be pressed and held together. Upon the release of all three keys, the switching action will be executed.

In Windows:



In MAC OS:



Please note that in addition to the hotkeys as configured in the software interface, you can still use the original “hardware” hotkeys:

Hotkey sequence = [ScrLk]* + [ScrLk] * + Command key(s)

* User-definable = SCROLL LOCK, CAPS, ESC, F12 or NUM LOCK

Using Auto-scan

Auto-scan provides users with the ability to designate automated scanning of connected ports, at a pre-defined time interval. Typically used for random monitoring of connected servers and computers, administrators can select how frequently this feature will switch from one channel (connected/slave computer) to the next.

Right-click the KVM Switcher icon to evoke the operation menu, then select **Start Auto-Scan** to activate auto-scanning.

While auto-scanning, right-click the KVM Switcher icon to evoke the operation menu, then select **Stop Auto-Scan** to de-activate auto-scanning. Or you can press any button on the face-panel to stop Auto-scan.

KVM Switcher configuration

Right-click the KVM Switcher icon and select **Settings** (Windows) or **Preferences** (Mac) or double-click the icon to bring up the configuration dialog box.

Specifying Hotkeys

You can specify the command key as needed, by entering it within the configuration utility. For example, you can specify the hotkey for switching to **PC 1** as **CTRL - ALT - A** by typing an **A** (not case-sensitive) in the editable field.

Hotkey Sequence = CTRL - ALT - [command key]*

* The command key is user-definable via the configuration dialog box

Please note that if you intend to modify the command key, you have to modify them on each and every one of the connected computers, since the hotkey setting is stored within each connected computer.

With the exception of control keys such as **Alt**, **Ctrl**, **Shift**, **CAPS**, **Tab**, **Esc**, all keys on the keyboard, including number keys on the number pad, are qualified to be used as hotkey command keys.

Fix Audio to Port x

Check this option and then select the PC to which the audio/mic channel is to be fixed. Once this option is checked, the audio/mic channel will be fixed and become non-switchable.

Fix Hub Ports to Port x

Check this option and then select the PC to fix the hub ports to it. Once this option is checked, hub ports will be fixed to that PC port and become non-switchable

Auto-Scan Period

Select the Auto-scan period, from 10 ~ 60 seconds, with an increment of 5 seconds. The Auto-scan period is the time your KVM Switch will wait before switching to next to the PC.

Universal Hotkey

Select the Universal hotkey among **Scroll**, **CAPS**, **Numlock**, **F12**, **Escape**. Two consecutive keystrokes of the selected key and a number key will switch to the corresponding port.

Keyboard Hotkey Commands

Command Name	Hotkey Sequence	Description
Select active computer	[ScrLk]+[ScrLk]+[x]	Switches access to the computer connected to the corresponding port number on the KVM. ([x]= a number on the keyboard)
Select USB hub control	[ScrLk]+[ScrLk]+[Fx]	Switches which corresponding port number has access to the to the devices connected to the KVM's USB hub. ([Fx] = Function key: F1=Port 1, F2=Port 2, etc.)
Select Audio/Mic output	[ScrLk]+[ScrLk]+[Fy]	Switches which port's speaker and microphone output is active at the console. ([Fy] = Function key: F5=Port 1, F6=Port 2, etc.)
Bind computer and USB hub control (default)	[ScrLk]+[ScrLk]+[Z]	When <u>either</u> the select active computer or select USB hub control commands are executed, both functions are switched to the selected port.
Unbind computer and USB hub control	[ScrLk]+[ScrLk]+[X]	The computer control and USB hub control can be executed separately; KVM control and USB hub control can be assigned to different ports at one time.
Bind computer and Audio/Mic control (default)	[ScrLk]+[ScrLk]+[Q]	When <u>either</u> the select active computer or select audio/mic output control commands are executed, both functions are switched to the selected port.
Unbind computer and Audio/Mic output control	[ScrLk]+[ScrLk]+[W]	The computer control and USB hub control can be executed separately; KVM control and Audio/Mic output control can be assigned to different ports at one time.
Select next/previous port	[ScrLk]+[ScrLk]+[↑, ↓]	Selects the next (up arrow key) or previous (down arrow key) numbered port for control.
Select previous port	[ScrLk]+[ScrLk]+[BkSp]	Selects the most recent previously active port.
Beep sound on/off	[ScrLk]+[ScrLk]+[B]	Enables/disables audible responses from the KVM.
Define new hotkey sequence	[ScrLk]+[ScrLk]+[H]+[y]	Change the standard [ScrLk] hotkey to a new value (see below).
Auto-scan	[ScrLk]+[ScrLk]+[S]	Automatically switch active ports in sequence every 10 seconds. (Press any key to cancel.)
Auto-scan with programmable delay	[ScrLk]+[ScrLk]+[S]+[z]	Auto-scan with a delay other than 10 seconds (see below). Press any key to cancel.
Stop Auto-scan	Press any key on keyboard	Terminate Auto-scan activity

Notes:

1. The USB keyboard hotkeys allow you faster and broader control of KVM switching operation, in addition to the front-panel buttons. If you have configured a hotkey preceding sequence other than two consecutive scroll locks, you should change your hotkey sequence accordingly.
2. When the binding of PC & USB hub port control switching is enabled by the hotkey sequence: **ScrLk + ScrLk + Z**, PC and hub port control switching are bound together. To remove this binding, use the hotkey sequence: **ScrLk + ScrLk + X**.
3. When the binding of PC, Audio and Mic switching is enabled by the hotkey sequence: **ScrLk + ScrLk + Q**, any PC, audio and mic switching are bound together. To remove this binding, use the hotkey sequence: **ScrLk + ScrLk + W**.

LED Information

Green LED indicates PC port status: solid green – active port; flashing green – PC not connected;
Red LED indicates hub port control status: solid red – that PC has the control of all hub ports.

Important Note: The USB hub control status LED (red) indicates not the connected status of each USB device, but indicates which PC port has the control of all hub ports and their connected devices. For example, when USB LED 1 is lit, it means PC port 1 has the current control of all hub ports and their connected USB devices.

Specifications

Computers supported	2 (SV231DDUSB), 4 (SV431DDUSB)
Front panel push buttons	2 (SV231DDUSB), 4 (SV431DDUSB)
Automatic scan interval	10 - 60 seconds (in 5 second intervals)
Resolution supported	1920 x 1200 (digital), 2048 x 1536 (analog)
Computer peripheral connector Monitor	USB Type B x 4 VGA x 4 DVI-I x 4 SPEAKER Jack x 4 MIC Jack x 4
Console peripheral connector monitor	USB Keyboard x 1 USB Mouse x 1 DVI-I x 1 VGA x 1 SPEAKER Jack x 1 MIC Jack x 1 USB Hub (2 ports provided)
H x W x D (mm) (in.)	253 x 100 x 66 mm 10 x 4 x 2.6"
Operation Temperature	0 ~ 40°C
Storage Temperature	- 20 ~ 60°C
Humidity	0~90% RH, non-condensing

Technical Support

StarTech.com's lifetime technical support is an integral part of our commitment to provide industry-leading solutions. If you ever need help with your product, visit www.startech.com/support and access our comprehensive selection of online tools, documentation, and downloads.

Warranty Information

This product is backed by a one-year warranty. In addition, StarTech.com warrants its products against defects in materials and workmanship for the periods noted, following the initial date of purchase. During this period, the products may be returned for repair, or replacement with equivalent products at our discretion. The warranty covers parts and labor costs only. StarTech.com does not warrant its products from defects or damages arising from misuse, abuse, alteration, or normal wear and tear.

Limitation of Liability

In no event shall the liability of StarTech.com Ltd. and StarTech.com USA LLP (or their officers, directors, employees or agents) for any damages (whether direct or indirect, special, punitive, incidental, consequential, or otherwise), loss of profits, loss of business, or any pecuniary loss, arising out of or related to the use of the product exceed the actual price paid for the product. Some states do not allow the exclusion or limitation of incidental or consequential damages. If such laws apply, the limitations or exclusions contained in this statement may not apply to you.

About StarTech.com

StarTech.com is “The Professionals’ Source for Hard-to-Find Computer Parts”. Since 1985, we have been providing IT professionals with the quality products they need to complete their solutions. We offer an unmatched selection of computer parts, cables, server management solutions and A/V products and serve a worldwide market through our locations in the United States, Canada, the United Kingdom and Taiwan.

Visit **www.startech.com** for complete information about all our products and to access exclusive interactive tools such as the Parts Finder and the KVM Reference Guide. StarTech.com makes it easy to complete almost any IT solution. Find out for yourself why our products lead the industry in performance, support, and value.